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NATURALIST NOTEBOOK

NOVEMBER 1970

VOLUME VI

NO. 9

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Front Cover:

"White-tailed Deer"

photographed by John Bulger
from the National Audubon
Society's Wildlife Films.

Be sure and attend the films
this year.

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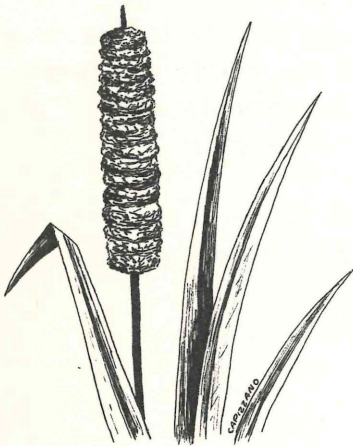
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NOVEMBER

The Month Of Travelling Seeds

November is the month of travelling seeds. All during the fall plants have been preparing for the winter to come. One important way is to have new plants of each species ready to come up the following spring. Seed travel is the major way that plants undertake this project.

November is the last month that plants have a chance to get their seeds established in a favorable site before winter. The plants have many methods in which they can go about it.



Wind is an obvious way and many of you can think of examples of seeds that move this way. Milkweed has its seed attached to a plume which travels with the wind to a new location. The seeds are kept in large pods which open in November releasing them. Other plants whose seeds have plumes to help carry them include the cattail and wild grasses such as the blue stem. Those such as maple and pine have a wing attached so that when they fall they spin like a helicopter blade

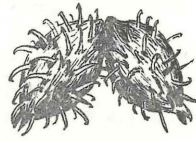
to move the seed away from the shade of the parent tree.

Other plants make their seeds tempting to animals to eat in an attempt to have them moved away from the parent

plant. The acorns of oaks that are readily gathered by squirrels will be buried or stored away. In his comings and goings the squirrel will usually forget where he hid some of them and these may be in an area where they can grow.

Other plants such as dogwoods produce berries that are eaten by many species of birds. The hard seed within the berry passes through the bird's digestive system and is excreted. If it lands in a good location, it will germinate.

Still others are carried by animals, but not with the animals' knowledge. These are seeds with burrs or hooks on them. An animal's fur or people's clothing brushing against the plant as they go through a field will cause the seeds to stick to them. They may then be carried on a "free ride" for quite a distance before they fall off or are pulled off and discarded. If they land in a favorable site, they will grow.



Cocklebur



*Beggar's
Tick*

Finally plants with seeds such as witch hazel, discussed in last month's Newsletter, and jewelweed or touch-me-not have a seed pod that propells the seeds in them a distance of several feet away from the parents plant's shade and thus insures a better chance for survival.

See how many different methods of seed travel you can find in a trip through the woods and fields.

THE NOVEMBER CALENDAR

November is the month of quiet, cold, and gray days.

November 1 ... No heavy frost occurred during the entire month last year.

November 3 ... Stormy, windy days bring gannets within sight of land along the Rhode Island coastline.

November 9 ... The tree sparrows arrive from the north.

November 10 ... Numbers of red crossbills were the highlight of last November. What about this year?

November 13-20 ... An Indian Summer this year? ?

November 13 ... The full Beaver Moon shines.

November 15 ... Snowflakes fell for the first time last season.

November 15 ... The first evening grosbeaks arrive at feeding stations.

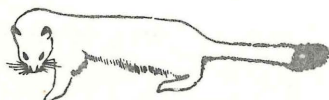
November 16 ... The first goldeneye ducks arrive in our bays.

November 17 ... The first redpoll report of last year.

November 19 ... Canvasbacks arrive on our rivers.

November 26 ... Thanksgiving Day -- Black Thursday for turkeys.

November 30 ... A beautiful crescent moon in the western sky.



FOOTNOTES TO NATURE

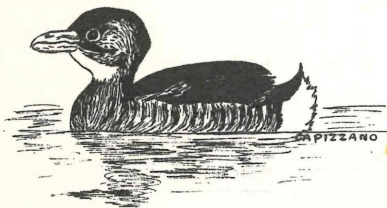
by MARY JEAN DEWIRE

THE PIED-BILLED GREBE

As I walked along the Mystic River the other day, I noticed a small bird swimming not far from shore. As I approached the bird, he sank under the water until only his head was showing. Suddenly, he somersaulted beneath the surface and darted away underwater. Minutes later after a careful search, I found the bird again -- way out in the middle of the river!

This peculiar behavior is characteristic of the pied-billed grebe and explains the name of "helldiver" that is given to this bird. Other common names for this grebe are dabchick and water witch. Sometimes you cannot find the little grebe after it has dived and it was once thought that he dove straight down and never returned. Some grebes have been known to dive as deep as 70 feet but of course, they have always returned to the surface!

The pied-billed grebe is the commonest of the grebes, all of which are expert divers. It can be distinguished from the other grebes by its short, stout chicken-like bill. Close up, during the spring and summer, you may see the ring around the bill which explains the name pied-billed.

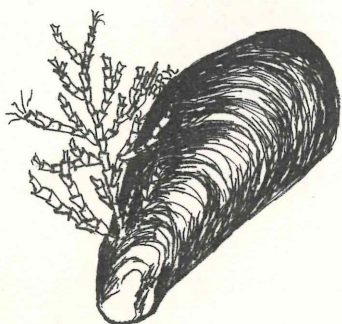


You can find these grebes in fresh or brackish water. Usually they are solitary but during migration you may see several of them together.

ALONG THE SHORE

by BARBARA KASHANSKI

MOSS ANIMALS



Bryozoa on mussel shell

Many times in the world of nature there are many interesting things to be seen right under our very noses, but we do not see them. Many times it is because we have not been taught how to look or maybe we just don't realize what we are looking at.

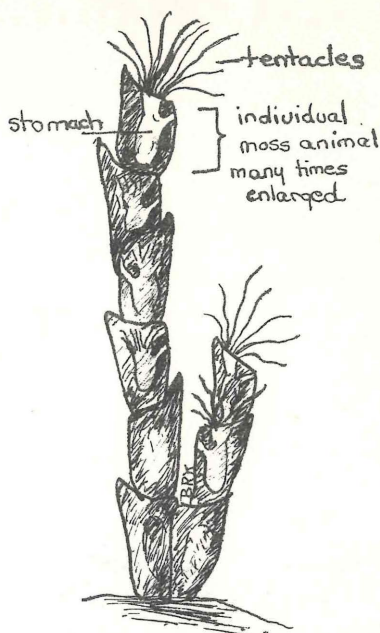
Many of you, I'm sure, have seen Bryozoa or Moss Animals, but I don't think you know you've seen them. One of our most common Bryozoa has the somewhat difficult Latin name of Bugula turrita. It is plentiful along our beaches at low tide, and usually can be found attached to a rock, shell, seaweed, or some other object.

The Moss Animals grow in colonies that have a branching plant-like form. You might have thought you were looking at a piece of lime covered algae or seaweed called corallina which looks a lot like Bugula. If you had looked closely at this "crusted plant" with a magnifying glass or hand lens you would see that the delicate branches are made up of many little individual animals enclosed in cup-like hard shells. If you put the "branch" in a little sea water and look closely again, you would probably see an opening at the un-

attached end of each compartment. Out of this opening you might see a ring of tentacles appearing and disappearing as the little animal collects the tiny plant and animal life called plankton on which it feeds. The in and out movement of the tentacles reminds me of the waving action of the barnacles' feathery "feet" which many of you have probably seen in tidal pools.

New Bryozoa are formed in two ways: either by budding, which means a bud forms on the side of an old individual, or from an egg which hatches into a free swimming larva that soon settles onto some object and starts a new colony.

Next time you think you might be looking at a branching, light-colored piece of seaweed, take a second look -- it may be a Moss Animal.



THANKSGIVING HOLIDAY: The Science Center will be closed from Thanksgiving Day, November 26th, until Monday, November 30th at 9:00 A.M. We hope that all of our members will have a happy holiday.

The 5 Most Confusing Feeder Birds

by BOB DEWIRE

Every year between the months of November and March, the Center gets a large number of phone calls from people who have "strange" or "different" birds at their feeders. They describe them to us and usually we are able to make an identification. In handling these calls over the past 4 winters I have found that there are a choice group of birds that stump people the most. Here are the top five and how to tell if you have them at your feeder or not.

1. THE HOUSE FINCH: Probably the most confusing; I feel that the big problem here is not that it is hard to identify, but that if you use Roger Tory Peterson's Field Guide to the Birds to look it up in, you can't find it because it is not in the book! The reason is simply that Peterson's book was published before house finches were established in the eastern United States as a result of caged birds being released in the New York area in 1940. The birds look like



Purple Finch



House Finch

purple finches but the males are a brighter red and have brown striping down their stomachs which the purple finch lacks. The females are harder to tell apart. Look on

the head for a noticeable white eyestripe in the purple finch which is not on the house finch (see drawing above).

2. THE COMMON REDPOLL: The House Finches are often called redpolls again because people using Peterson's Field Guide find that the redpoll is the closest bird that

comes to the finch except for the purple finch with which most are familiar. Redpolls are smaller than house finches being chickadee-sized. Both male and female redpolls have the red spot on top of the head. There is no red on the female house finch. The redpolls also have black around the bills which the house finches lack.

3. FEMALE BROWN-HEADED COWBIRD. This is about as non-descript a bird that there is. A little smaller than a cardinal it is an all gray bird. The bill is thick like a finch's rather than long like a grackle's. Usually they are with the male which is easily recognized as it is all black with a chocolate brown head.

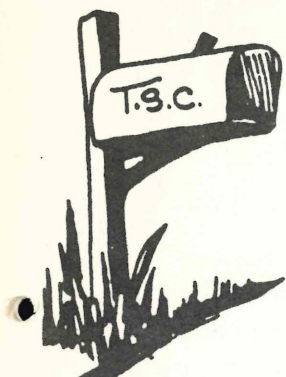
4. GOLDFINCH: This bird is no problem to identify in the summer but the dull winter plumage of the goldfinch can be very confusing if you are not aware that the males change color. The bird is small -- the size of a chickadee with a dull yellow-brown body. The wings are the striking thing to look for being a bold pattern of black with white striping. Usually goldfinches travel in small flocks with some yellower than others. As spring approaches watch the males get brighter with each passing day.



5. FOX SPARROW: Our largest sparrow, this bird is common on migration in November and March, but most go further South in winter leaving only a few behind. The large size (same as a cowbird) very red-brown tail and back and streaked front will identify it.

If you have a confusing feeder bird not listed here let us know and we will continue this list in the future.

ARTICLES OF ADULT INTEREST



We welcome notice of Conservation activities or problems for inclusion in this section of the Naturalist's Notebook Please let us know of your local activity so that others may be aware of your efforts and lend their support where possible

OUR NEW CURATOR: The Center is pleased to announce that Mrs. Stephen Capizzano has been hired to fill the position of Curator at the Science Center. Many of you are familiar with Martha through her excellent drawings in our Newsletter. She will have among her duties the task of developing our new museum's exhibits. We hope our members will stop in and meet her when they are in the area.

DEDICATION OF OUR NEW BUILDING: Our new Interpretive Center will be formally dedicated on Sunday, November 1st at 3:00 P.M. We hope that as many of you as possible will be able to attend the program and see our beautiful new building.

STATUS OF OUR NEW CENTER: Although we are operating out of our new center, the museum is far from being completed. It will take a lot of time and energy to devise and complete the many exhibits that it will take to fill our museum room. We therefore have only office hours at present which are from 9:00 to 5:00 on Monday thru Friday. An announcement will be made when the museum portion of the Center will be opened to the public.

AUDUBON WILDLIFE FILM: Our second film of the season will be shown on Sunday, November 15th at

3:00 P. M. in Palmer Auditorium at Connecticut College. Mr. Kent Durden will present his film entitled "Death Valley -- Land of Contrast" in which we will be able to explore this most arid region and see the amazing variety of life that exists there. Tickets will be on sale at the door. Adult and student members of the Center who do not have series tickets but plan to attend the last three films can still save a dollar and 50 cents respectively by purchasing one at this film.

BIRD SEED: In addition to our usual supply of sunflower and wild bird seed the Center is pleased to announce that we will be carrying thistle seed this winter. This is a favorite seed of such birds as goldfinches, siskins, redpolls and purple finches and is readily eaten by the various sparrows and cardinal. Prices are as follows:

	MEMBER	NON-MEMBER
Sunflower Seed		
3 lbs.	\$.75	\$1.00
50 lbs.	7.00	8.00
Wild Bird Seed		
5 lbs.	.75	1.00
25 lbs.	2.75	3.25
50 lbs.	4.25	5.00
100 lbs.	8.00	9.50
Thistle Seed		
2 lbs.	1.00	1.25

Orders of over 100 pounds will be delivered.

CORRECTION: In last month's Naturalist Notebook there was an omission from Martha Capizzano's article on detergents which resulted in some difficulty in understanding the last part of it. On page 13 at the end of the paragraph continued over from page 12 and before the next paragraph there should be the heading DO NOT USE referring to the remainder of the article.

FROM THE EXECUTIVE DIRECTOR'S DESK

by ROBERT S. TREAT

When did you last go for a walk? Are you part of the "wheel-and-chair" syndrome? If you are a commuter, do you enter your car in the garage already attached to the house to avoid further steps and drive to the station parking as close as possible? As a student, does the bus pick you up near your home and deposit you at the school's doorstep? As a housewife, do you park your car in front of the supermarket to avoid those extra steps? As a nature lover, do you build birdhouses so that the birds come to your window rather than taking to the woods to find them? And if you do walk, do you find others saying, "Do you mean you walked?" so that you become apologetic about your stroll?

Something has happened to Americans in the same way that something has happened to the American countryside. It has been creeping and encouraged over the years with too few people aware of what was taking place. Yet as one day we discovered that the big shopping plaza, the super highway and the blighted strip were not only in our own hometown, but across the nation, so we sensed that people do not walk anymore. We are a nation of spectators. Everything is accessible by car, and if it isn't now, it will be shortly. With our incessant belief in our ability to conquer every obstacle, flatten every hill, straighten every curve and provide wall-to-wall cement availability, Henry Ford's dream of putting every American behind the wheel of a car has come true. The results? We are overweight and underwalked. We are also an uptight nation, tense, obese, suffering from the physical and psychological ailments that come from affluence.

We need to get our feet on the ground again in more ways than one, and walking seems a good way to begin. It is so simple and natural (not walking is unnatural) that we tend to downgrade it, however. We avoid walking at all costs, and fail to recognize the tremendous enjoyment it can provide or its astonishing benefits. Take, for example, the following benefits listed by health and medical authorities:

A "best" exercise by physical fitness experts; a preventive of heart and circulatory disorders by cardiologists; a first-rate weight controller by obesity experts; a preventive and a remedy for respiratory disorders by chest specialists; an aid to sleep; an antidote to tensions whether physical, psychological or emotional; a partial protection against the damaging effect of heavy smoking on the heart, circulatory and respiratory systems.*

Perhaps it is enough to say that it is unfortunate, but true, that we do not miss walking until we are deprived of it.

If you find that you have joined the "wheel-and-chair" syndrome, perhaps without realizing it, why not park the car one block from the station, or get off the bus one block earlier, or take to the woods. In order to highlight the problem and perhaps make a start towards its solution, the Thames Science Center has formed an Outing Club. Our first walk will be on Saturday, November 21 to do the Lantern Hill section of the Narragansett Trail. Meet at 10:00 a.m. at the Peace Sanctuary rain or shine. This will be an all weather trip! Those who walk only in fair and mild weather deprive themselves of some of the most fascinating aspects of the natural world. Come with proper foot gear, a trail lunch, ready to relax and enjoy whatever nature has to offer that day.

*The Magic of Walking by Aaron Sussman and Ruth Goode.

An Introduction to Pollution

by MARTHA CAPIZZANO

NOISE POLLUTION

NOISE: a dripping faucet, a Beethoven symphony, a whirring air conditioner, a honking horn, clanging garbage cans, a chain saw, a trailer truck or a sonic boom ... any sound that is disturbing is noise.

Relative noise levels are measured by an arbitrary unit called a decibel. A decibel scale, that runs from 0 to 130 for humans, increases logarithmically, not arithmetically. That is, an increase in sound level of four decibels -- from 110 to 116, for instance -- represents a doubling of the perceived noise level. A twenty decibel factor represents an increase of ten times. A few examples of noise levels follow:

Suburban home at midnight	32
Truck, 25 ft. away	90
Outboard motor	102
Motorcycle	110
Rock 'n Roll band	120
SST @ 1, 500 ft.	130

Noise pollution is becoming a greater problem year by year just as air and water pollution are worsening. Environmental noise levels have increased over one decibel a year and are still increasing.

Quiet noise may only disrupt your serenity, but medical studies on the effect of noise confirm that prolonged exposure to 85-90 decibels will destroy cells in the ear resulting in permanent hearing loss. Physical pain may occur at 120 decibels and does occur at higher levels. Test cases showed that noise at 103 decibels produced seizures in mice. It has also been found that noise altered the hormonal balance of test rats which

effected metabolism and stimulated labor changes in pregnant females. Violent noise, such as a sonic boom, may have permanently damaging effects on unborn babies. Other sonic boom tests confirm that it will crack walls of buildings, break windows, kill small animals, stampede cattle, trigger an avalanche and may even initiate asthma attacks.

A sonic boom is an earsplitting, explosive-type sound produced by aerial shock caused from the supersonic transport jet (SST) flying faster than the speed of sound. The boom affects an area fifty miles wide for the entire length of its flight.

In the United States, SST's are used by the military as they are in other countries. The first commercial SST was a joint effort by France and great Britain, and a second one was built by Russia. So that we may "keep up with the rest of the word" President Nixon favored funding of two commercial prototype SST's despite strong disapproval by his White House Council on Environmental Quality. Late in May, 1970, the House of Representatives approved, by a narrow margin, a \$290-million-development-project for 1971. John Volpe, Secretary of Transportation, has also recommended government-guaranteed loans for the SST's if private capital is not possible. Never before has the government (we, the taxpayers) helped finance a commercial plane. Since the SST program must still be passed by the Senate before it becomes a reality, why don't you write to your senators to voice your opinion? All mail can be received at: Senator, Senate Office Building, Washington, D. C.

The jetport-industrial city complex that has been proposed for eastern Connecticut and designed to handle SST's is still a strong possibility. This will be the topic of next month's article.

FIELD NOTES

SEPT. 1 - OCT. 15

Fall migration is always a most interesting period for bird watchers. Many strays from the South and West get off course during migration and find themselves on the East coast. The warbler migration was for the most part a slow one and while one could find most of the regularly occurring species, there were no great numbers present. The cold front that arrived on September 27th produced the finest flight of birds over the next three days. The MYRTLE WARBLER was the one species present in good numbers from Oct. 1st on.

The winter finch outlook for this coming winter is not a good one. There is a bumper crop of cones and berries throughout northern New England this year. With a plentiful food supply the birds will not have to come this far south as they did the last two years. One bright spot in the outlook was a sighting of a single EVENING GROSBEAK on Block Island during the annual Audubon Weekend there on Oct. 4th. Anyone who sees any of the birds classed as "winter finches" (Evening or Pine Grosbeaks, Pine Siskin, Redpoll, Red or White-winged Crossbill) should contact the Center and tell us.

Old Saybrook and Old Lyme: A LOGGERHEAD SHRIKE was at Fenwick in Old Saybrook on Sept. 1st. The RED-BELLIED WOODPECKER is still present in a woodland off Whippoorwill Road in Old Lyme. The bird has been there for a year.

Waterford and New London: The migration of LAUGHING GULLS was abnormally high this September with several hundred birds moving along the coastline daily. Hawks were migrating daily along the coast

in early October with many SHARP-SHINNED HAWKS, MERLINS and KESTRALS noted. A WHITE-CROWNED SPARROW has been at Harkness Park through October 15th. A very rare BLUE GROSBEAK was seen feeding with a flock of FIELD and WHITE-THROATED SPARROWS at Mary Butler Drive in Waterford on October 10th. WHITE-THROATS were coming to a feeding station at Mary Butler Drive by October 12th. A SLATE-COLORED JUNCO was seen there on Oct. 1st. A SNOW BUNTING seen at Waterford Town Beach on October 13th was two weeks early.

Groton, Mystic and Stonington: At the University of Connecticut's Branch at Avery Point the very rare PEREGRINE FALCON was sighted as it passed over the campus and flew south over the Sound on October 14th. A LAPLAND LONGSPUR was seen there the same day and was a month early. An excellent flight of GRAY-CHEEKED THRUSHES was observed at the Peace Sanctuary from Sept. 27th to Oct. 1st. Both GOLDEN-CROWNED and RUBY-CROWNED KINGLETS were there by the end of Sept. A SPOTTED SANDPIPER on the Mystic River on Oct. 6th was late and one at Avery Point on the 14th remarkable. At Barn Island both WHITE-THROATED SPARROWS and SLATE-COLORED JUNCOS were present on Sept. 27th. Other sightings there included several AMERICAN BITTERNS throughout the period, COOT on Oct. 4th and a LOGGERHEAD SHRIKE and 2 BALDPATE on Sept. 2nd. The WHITE IBIS were last seen on Sept. 20th.

Rhode Island Shoreline: At Moonstone Beach there was an AMERICAN AVOCET present at the end of September and 3 CASPIAN TERNS flew over there on Oct. 1st.

Contributors to this column were: Grace Bissell, James Clark, Bob & Mary Jean Dewire, Mrs. Philip Dewire, Davis Finch, Helen Gilman, Elizabeth Noyes, and Eloise Saunders.

ACTIVITIES FOR NOVEMBER

Sunday, November 1 ... 3:00 P.M. The Dedication of our new Interpretive Center on Gallows Lane.

Saturday, November 7 ... 10:00 A.M. A Junior Workshop for Members in Grades 4, 5, and 6. "Making a Seed Collection". Registration required. Limit 15 children. No fee.

Sunday, November 15 ... 3:00 P.M. Audubon Wildlife Film. Mr. Kent Durden will show his film "Death Valley -- Land of Contrast". Presented at Palmer Auditorium, Connecticut College. Tickets available at the door.

Saturday, November 21 ... 10:00 A.M. An all day walk along the Narragansett Trail around Lantern Hill. See page 12 for details.

Sunday, November 22 ... 1:00-4:00 P.M. Bird Banding Demonstration. Banding will be conducted all afternoon at the trapping station at the Peace Sanctuary. Come anytime between 1:00 and 4:00 and stay as long as you want.

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NATURALIST NOTEBOOK

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The active support of children and adults in the Science Center, its programs, activities and efforts is earnestly solicited.

ROBERT DEWIRE
Editor



SEED TRAVELLERS

Photo by R. Dewire

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